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First record of *Dendrothele mangiferae* (*Agaricales*, *Basidiomycota*) from the Neotropics

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Abstract — *Dendrothele mangiferae*, previously known only from the Mascarene Islands, is reported for the first time from Central America. It has been found in Costa Rica growing on bark of living *Terminalia catappa*. A full description, line drawing, and colour photos are provided.

Key words — corticioid fungi, Manuel Antonio, ornamented basidiospores

Introduction

A conspicuous corticioid species, *Dendrothele mangiferae*, has recently been collected from Costa Rica on bark of living *Terminalia catappa* L. (*Combretaceae*), a large tree naturally widespread in subtropical and tropical zones of Indian and Pacific Oceans and planted extensively throughout the tropics. It constitutes the first record from outside the Mascarene Islands of Réunion and Mauritius (Boidin et al. 1996). Specimens are fully described and illustrated. Additional comments on the generic placement and related species are provided.

Materials & methods

For light microscopic studies, samples were mounted in 3% potassium hydroxide (KOH), Melzer's reagent (IKI), and 0.1% cotton blue in 60% lactic acid to determine cyanophily of basidiospore walls. Line drawings were made with a camera lucida attachment. Specimens are deposited in INB and SALA.

Taxonomy

Dendrothele mangiferae Boidin & Duhem, Bull. Soc. Mycol. France 112(2): 106, 1996. Plates 1–2

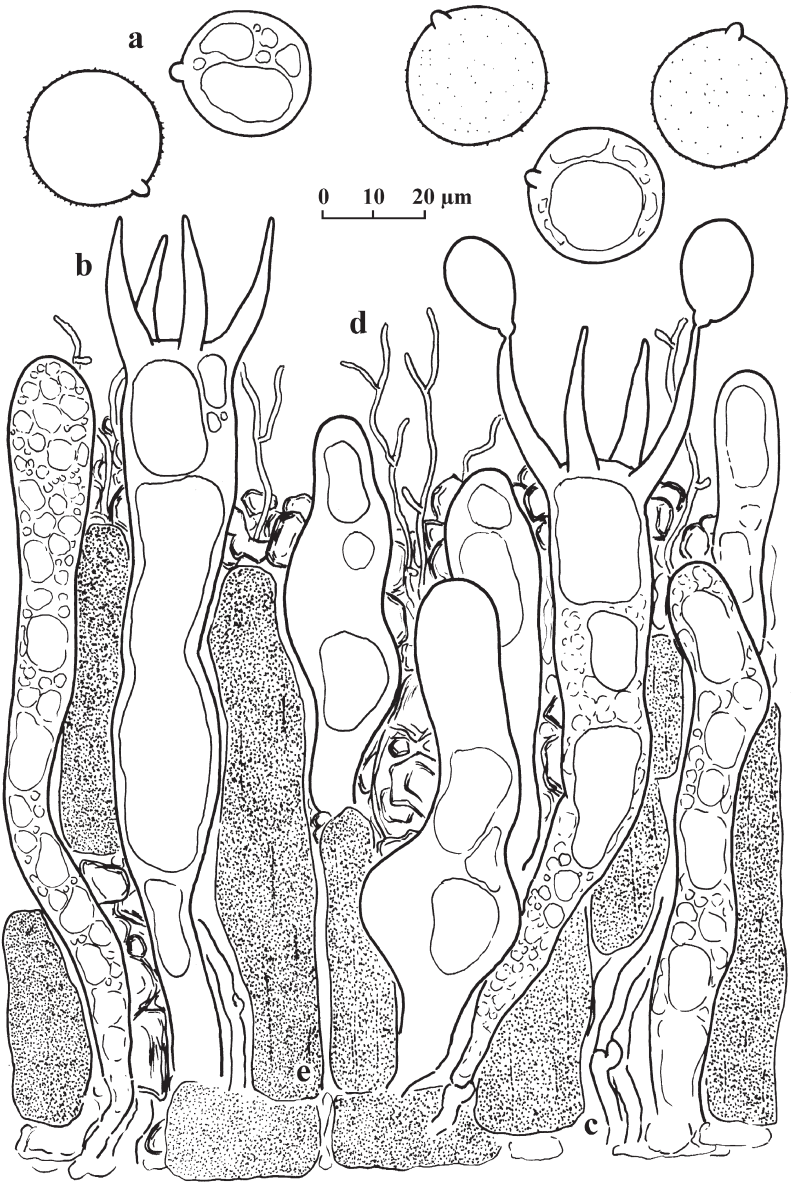

Plate 1. *Dendrothele mangiferae* (S.P. Gorjón 3383).
Hymenial elements: a) basidiospores; b) basidia; c) hyphae; d) dendrohyphidia; e) host cells.

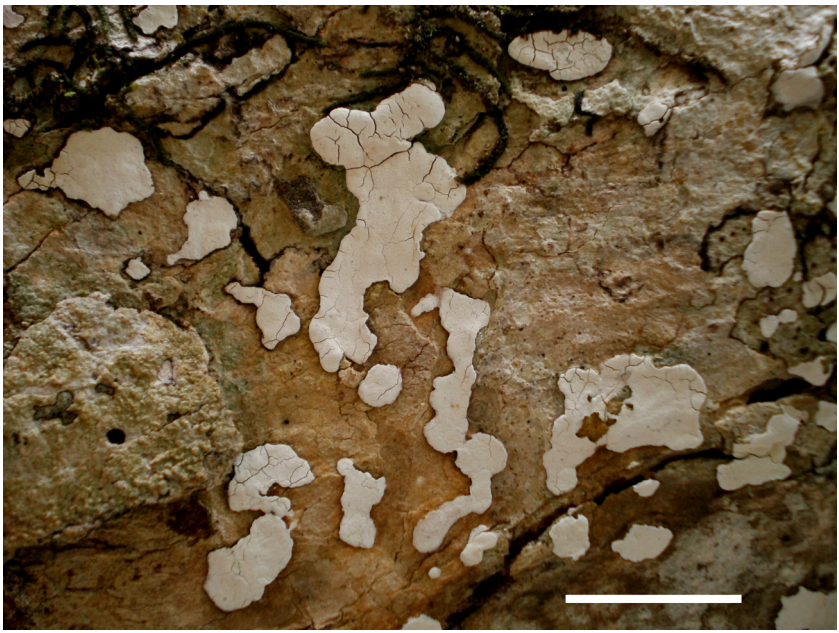

Plate 2. *Dendrothele mangiferae* (S.P.Gorjón 3383). Basidiome. Scale Bar = 2 cm.

Basidiomata resupinate, orbicular at first, then effuse, adnate, white, hymenial surface smooth, cracked when mature, margin abrupt. Hyphal system monomitic, hyphae clamped, 2–4 µm wide, thin-walled, obscured by the abundant crystalline encrustation. Dendrohyphidia filamentous, sinuous, with few branches, clamped. Basidia suburniform at first, then subcylindrical, cyanophilous, 100–150 × 15–25 µm, basally clamped, with 4 long sterigmata about 15–25 µm. Cystidia absent. Basidiospores subglobose, (22–)24–27 × 22–25 µm, when immature and still attached to the sterigmata broadly ellipsoid, seemingly smooth but minutely spinulose in Melzer's reagent and cotton blue, walls hyaline, slightly thickened, with a conspicuous blunt apiculus, faintly cyanophilous, inamyloid, nondextrinoid.

Habitat and distribution — Known from the Mascarene Islands growing on trunks of *Mangifera indica* L. (*Anacardiaceae*) and undetermined trees; and from Costa Rica on bark of living *Terminalia catappa* on the Pacific coastal shore (Plate 3).

specimens examined — **COSTA RICA. Manuel antonio**, Espadilla beach, 9°23′35″N 84°09′12″W, 2–5 m a.s.l., 23.VII.2011, on bark of living *Terminalia catappa*, leg. S.P. Gorjón, coll. 3380, 3381, 3382, 3383, 3384.

Comments — *Dendrothele mangiferae* is easily recognized by the large globose and minutely ornamented basidiospores. Within *Dendrothele* Höhn. & Litsch.,

Plate 3. Habitat of *Dendrothele mangiferae* with *Terminalia catappa* trees on the Pacific coast of Costa Rica.

there are two additional species with spinulose basidiospores: *Dendrothele candida* (Schwein.) P.A. Lemke, with globose basidiospores (13–)15–20 × (11–)13–16(–20) µm and clampless hyphae; and *Dendrothele nivosa* (Berk. & M.A. Curtis ex Höhn. & Litsch.) P.A. Lemke, with subglobose to ovoid basidiospores 16–24 × 14–17 µm and clamped hyphae. Phylogenetic studies show that *Dendrothele* is a polyphyletic genus, and that *D. nivosa* seems not to be closely related to other *Dendrothele* species, including the generic type, *D. papillosa* Höhn. & Litsch. [= *D. griseocana* (Bres.) Bourdot & Galzin] (Karen K. Nakasone, pers. comm.). Further studies are needed within *Dendrothele* species with ornamented basidiospores to elucidate their phylogenetic relationships.

Acknowledgments

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Literature cited

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